BEFORE THE POLLUTION CONTROL HEARINGS BOARD
STATE OF WASHINGTON

LORNE and BETTY RUMBALL Appellants, v. STATE OF WASHINGTON, DEPARTMENT OF ECOLOGY and JACK I. MAYER Respondents.	PCHB No. 86-127 FINDINGS OF FACT, CONCLUSIONS OF LAW, AND ORDER

THIS MATTER, the appeal of an approval (Order No. DE 86-574) by the Department of Ecology (DOE) of an application for a permit to construct a reservoir, storing 29.5 acre-feet of water, came on for hearing before the Pollution Control Hearings Board, Lawrence J. Faulk, Chairman (presiding), Wick Dufford, and Judith A. Bendor, Members, convened at Seattle, Washington, on November 25, 1986. Respondent elected a formal hearing pursuant to RCW 43.21B.230.

Appellants represented themselves. Respondent Department of Ecology appeared by Allen T. Miller, Jr., Assistant Attorney General. Reporter Cheri L. Davidson of Gene Barker and Associates recorded the proceedings.

Witnesses were sworn and testified. Exhibits were examined. From testimony heard and exhibits examined, the Pollution Control Hearings Board makes these

FINDINGS OF FACT

I.

This matter concerns the proposal of Jack I. Mayer to enlarge a reservoir located near Anacortes in Skagit County, Washington. Under the application (No. R1-24623), when the reservoir is filled to normal operating pool level (NOPL), 29.5 acre feet of water will be stored behind the impounding dam. Uses to be made of the impounded water are listed as "recreation, stock watering, wildlife refuge, fish, fowl -- continously" and "irrigation during irrigation season" and "fire protection as needed." The time limits, quantities and rates of diversion are spelled out in a separate secondary permit application, not here under dispute.

II.

The dam and reservoir were originally constructed in the late 1960's by a predecessor-in-interest to Mr. Mayer. The dam was built across a draw flooding a peat bog. No continous watercourse flowed through the area, but intermittant drainage down the draw occurred for a watershed of about 80 acres.

The original project was authorized after-the-fact in March 1972 by DOE. Although there is dispute as to its exact size, the original reservoir is agreed to have been much smaller than the present one.

III.

Subsequent to the building of the dam and creation of the reservoir, several residences were built in the area below and down drainage from the impoundment. Among these was the home now occupied by the appellants, Lorne and Betty Rumball.

Thereafter, in the early 1980's, Mr. Mayer enlarged the reservoir to its present size by excavating peat from its bed. The dam retains its original dimensions.

IV.

The instant controversy arises from the fears of the residents below the dam who are concerned for the safety of their persons and property. During incidents of high rainfall, water has reached residential properties below the dam. On two occasions Mr. Mayer has artificially released larger than normal flows from the dam while cleaning the reservoir, and these incidents have produced alarm and unrest.

V.

Complaints about the reservoir and its operation in 1984, resulted in follow-up contact with Mayer by DOE which ultimately brought about the filing of the application at issue on March 25, 1985.

Because the proposal involved a reservoir more than ten (10) acre feet of water at NOPL, the DOE conducted a dam safety investigation on April 23, 1985. As a result, DOE made specific suggestions to Mayer for improvements in the dam and advised that plans should be prepared and submitted by a registered professional engineer.

Mayer hired an engineering firm which prepared plans incorporating DOE's proposals and, after review, these were approved by the agency. Mayer has agreed to conform the modifications to the approved plans and DOE has stipulated that any permit issued shall be conditional on complying with these plans.

VI.

DOE's order approving the application is supported by an extensive Report of Examination, issued June 16, 1986. On July 17, 1986, the appellants feeling aggrieved by this decision appealed to this Board.

VII.

The existing dam is 20 feet long across its top with a 15 foot top width. The water face of the dam has a 5:1 slope. The opposite face is vertical.

According to the relevant quadrangle map, the dam site is at an elevation 380 feet above mean sea level. The discussions of the proposed permit, however, have used elevations referring to a surveyor's benchmark (BM) in the vicinity, designated 100 feet.

Using this reference, the top of the dam is between 101 and 102 feet BM. NOPL is at 99 feet BM. Excavations have created a reservoir with a maximum depth of about 14 feet and an average depth of approximately 5 feet over a 4.9 acre area. An additional 5 acres of peat bog are floodable to a depth of one foot, providing a total pool of 29.5 acre feet at NOPL.

VIII.

Set into the dam and running through it horizontally is an outflow pipe six inches in diameter. This pipe is placed at 93.6 feet BM and water can be let through it from that level in the reservoir by use of a gate valve.

Connected to this horizontal pipe near its in-reservoir end is a three inch vertical riser pipe which extends upward to the 99 feet BM level. This riser pipe is open at its top and through it water can flow freely down to the six inch horizontal pipe and from thence through the dam and down the drainage.

At times of normal inflow, the three inch riser pipe can prevent the reservoir level from exceeding NOPL. Because of the water storage capability, the existing reservoir, dam and outlet structure are now performing a flood control function, dampening the peak flows from the 80 acres of watershed. The outflow pipe acts as a throttle by which releases are regulated.

IX.

Notwithstanding the flood control value of the present impoundment, a dam failure would cause major damage to structures below.

We find that DOE's dam safety inspection correctly concluded that the impounding dam is generally sound and that seepage through or under the dam is not a problem. But, we note that the agency required several modifications to increase safety in the event of extraordinary storms in the drainage. These are:

1. Replace the three inch riser pipe with a 12 inch diameter metal riser, encased in concrete enveloping the connection to the six inch diameter outlet pipe.

2. Construct an erosion resistant emergency spillway for the purpose of passing floodwaters resulting from a 5000 year frequency storm event. The base elevation of the spillway should be at 100 feet BM and sized to pass the flood produced by a 24 hour storm having a depth of 4.35 inches over the 80 acre drainage area.

3. Install a trash rack on the riser assembly to collect debris and prevent clogging. Keep the embankment and general dam area free of trees, shrubs and other deeper rooted vegetation.

With these changes, agreed to by Mayer, the dam and reservoir will be able to contain the 100 year frequency flood, yet the spillway will be available to pass the waters of the probable maximum flood for the area. The end result will provide a margin of safety beyond the usual requirement, and was imposed by DOE to account for the high hazard involved with the homes in the pathway of possible flooding.

X.

The larger riser pipe will allow more water than presently to drain through the reservoir outlet system when the pool reaches NOPL. The potential outflow will approximate the flow now experienced when the reservoir is drained by opening the gate valve on the six inch pipe at the 93.6 feet BM level.

The Rumballs provided no evidence of specific damage either they or their property have suffered when the valve has been opened by Mr. Mayer to draw the reservoir down. Moreover, their concerns appear, at least in part, to stem from alterations in the natural drainage below the dam which, they claim, have changed run-off characteristics to the detriment of the homeowners below.

Below the dam Mr. Mayer has engaged in construction and clearing involving a road, ditching, masonry and gabions which are asserted to have affected the speed and instantaneous volume of outflow from the draw. None of this activity is authorized by, or in any way, affected by the instant permit. Therefore, we express no opinion on the assertions concerning such activity.

We are, however, unconvinced that the modifications to the dam and reservoir authorized by the permit, in and of themselves, pose an increased flood damage risk to appellants. On the contrary, we find that the overall flood safety situation will improve when the modifications are undertaken.

XI.

Any Conclusion of Law which is deemed a Finding of Fact is hereby adopted as such.

From these Findings of Fact, the Board comes to these

CONCLUSIONS OF LAW

I.

The Surface Water Code, chapter 90.03 RCW requires the same determinations in the case of reservoir permits as for other appropriations. RCW 90.03.370. As relevant here, this requires a determination that the project will not be detrimental to the public welfare. RCW 90.03.290.

For reservoirs over 10 acre feet in size, the Code requires that plans and specifications for the dam or controlling waters be inspected as to safety by DOE and that construction be in accordance with such plans and specifications as the agency approves. RCW 90.03.350.

II.

We conclude that DOE's inspection and plan review in this case were properly conducted and satisfied the provisions of RCW 90.03.350. Under these circumstances, we further conclude, that the reservoir permit conditioned on carrying out the dam safety requirements imposed by DOE is not detrimental to the public welfare.

Accordingly, we hold that the DOE's decision to issue such a permit must be sustained.

III.

An upper proprietor may not by artificial changes in the natural characteristics of a drainage area cause more water than naturally would occur to be cast upon a lower owner's property to the latter's

damage. This is a long established tort principal, Rylands v. Fletcher, 1868 L. R., 3 H.L. 330, a part of the common law of drainage, see e.g. Wilbur Development v. Rowland Construction, 83 Wn.2d 871 (1974), and not, as it concerns matters beyond the ambit of the permit before us, a matter for us to resolve under the Water Code. Therefore, we make no attempt here to decide tort issues which have been (or may be) raised in an appropriate forum.

IV.

Any Finding of Fact which should be deemed a Conclusion of Law is hereby adopted as such.

From these Conclusions the Board enters this

ORDER

Department of Ecology Order No. DE 86-574 is affirmed, provided that the permit issued pursuant thereto is conditioned to conform to the plans and specifications approved after DOE's dam safety review.

DONE at Lacey, Washington, this 2nd day of September, 1987.

POLLUTION CONTROL HEARINGS BOARD

9/1/87

LAWRENCE J. FAULK, Chairman

WICK DUFFORD, Member

JUDITH A. BENDOR, Member